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## INVENTION SPECIFICATION

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Scientific and Research Children's Orthopedic  
Institute named after G.I. Turner

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(54) (57) APPARATUS FOR DYNAMIC  
UNLOADING OF HIP JOINT comprising  
pelvic bones and femoral bone attachment  
elements and a spherical hinge, *wherein*, in order  
to shorten the installation time of the apparatus  
while reducing its dimensions, the attachment  
elements are embodied in the form of arcuate  
crests having tubular guides on the convex side  
and installed in them spring-loaded fingers,  
connected between themselves via spherical  
hinge.

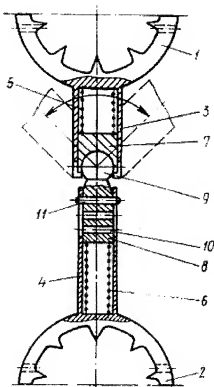


Fig. 1

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The invention relates to medicine, and specifically, to devices for unloading a hip joint, and can be used in traumatology and orthopedics.

The objective of the invention is to shorten the installation time of the device while reducing its dimensions by embodying the attachment elements in the form of tubular guides on the convex side and installed in them spring-loaded fingers, connected between themselves via spherical hinge.

Figure 1 shows a longitudinal section of the apparatus for dynamic unloading of the hip joint, and Figure 2 shows the side view of the same.

Apparatus for dynamic unloading of a hip joint comprises pelvic bones and femoral bone attachment elements embodied in the form of arcuate crests (1) and (2) having tubular guides (3) and (4) installed on the convex side thereof. Fingers (7) and (8) are installed in the guides (3)

and (4) using springs, and are connected via a spherical hinge (9). Finger (8) has holes (10) to accommodate a pin (11).

Abarticular endoprosthesis for the hip joint is used as follows.

Using pins (11), the springs are set for maximum compression. One of the crests is brought to a supra-acetabular region, while the other is brought to a medial part of the greater trochanter. Then, the pins are removed and the springs start acting in tension. During movements, the hinge operates coaxially with the joint due to spring action along the axis.

By using the endoprosthesis, it becomes possible to unload the joint without intervening in it, as well as maintain or increase the amount of movements in it without affecting the coaxiality of the joint and hinge action.

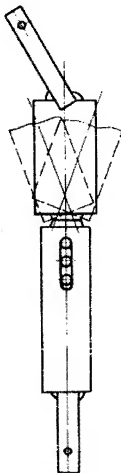


Fig. 2